

NEW OR LITTLE-KNOWN MARSUPIALS: A NEW SPECIES
OF PHASCOGALINAE, WITH NOTES UPON *ACROBATES*
PULCHELLUS ROTHSCHILD.

BY G. H. H. TATE.

IN the Zoological Museum, Tring, in the summer of 1937, I came across two specimens of an obviously new Dasyurid collected by A. S. Meek in 1905. At my request Dr. Karl Jordan, Director, consulted the late Lord Rothschild as to the desirability of permitting the new species to be described. Lord Rothschild kindly consented to lend the material to the American Museum of Natural History, New York, for description, and in addition to send for study the type skull of the unique *Acrobates pulchellus* Rothschild and two specimens of *A. p. frontalis* (De Vis) 1887 from near the type locality. Studies were conducted also a few months ago of the type of *Acrobates pygmaeus* at the British Museum (Natural History). So I am now in a favourable position to discuss the relationships of the three named forms of *Acrobates*.

My presence in Europe last summer was due to the generosity of Mr. Richard Archbold, who has financed two expeditions to New Guinea, and who last year set aside a sum of money to allow study of the types of Indo-Australian mammals.

1. **Phascogale (*Murexia*) rothschildi** n. sp.

Type.—Field No. 1, Zoological Museum, Tring; ♂, adult; Aroa River, Papua; May 28, 1905; collector A. S. Meek. The type is a skin and skull in fair condition but lacking field measurements.

General Characters.—A member of the subgenus *Murexia* Tate & Archb. 1937, but sharply differentiated from *Ph. murex* Thomas 1913, to the eye by the presence of a broad dorsal stripe running from nose to tail.

Description of type.—General colour greyish brown, becoming slightly tinged with cinnamon on thighs; the individual hairs with grey bases, brown subterminal bands and fuscous tips; occasional guard hairs shining black; dorsal band fuscous, running from frons to base of tail, reaching an average width of 13 mm.; underparts Light Cinnamon Buff,¹ with grey bases; ears and tail light fuscous; hands and feet buff. Pelage relatively short (4 mm.) and crisp.

Skull with the characters of *Ph. murex* but small throughout; palate and muzzle relatively short and broad; incisors and premolars with similar size gradients. Teeth considerably smaller than those of *P. murex*.

Measurements.—Head and body,² 170 mm.; tail, 180; hind foot (s.u.), 33; ear from crown, 13; skull, greatest length, 43.2; basal length, 40.1; zygomatic breadth, 24.6; interorbital breadth, 8.0; breadth of braincase, 16.0; mastoid breadth, 16.0; nasals, 14.9 × 5.3; palatal length, 23.0; anterior palatal foramina, 3.7; breadth of mesopterygoid fossa, 5.1; length of bulla, 2.9; crowns p⁴–m⁴, 10.8; m¹⁻³, 7.6; m¹, 2.6 × 2.0.

Paratype.—No. 108106, Amer. Mus. Nat. Hist.; ♂, adult; collector and locality as for the holotype.

¹ Colours are those of Ridgway, *Colour Standards and Nomenclature*, 1912, only if capitalized.

² From the dry skin.

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I take pleasure in naming this interesting new species in memory of the late Lord Rothschild, who devoted so much of his life to furthering zoological knowledge.

2. On *Acrobates pulchellus* Rothschild 1892.

Forty-five years ago Rothschild described ¹ *Acrobates pulchellus* from "one of the small islands in Northern Dutch New Guinea." The unique specimen had been received from A. Bruijn, who acted as a dealer and obtained his material (chiefly from natives) from all about the western end of New Guinea. The place of origin of the animal is therefore in doubt.

Rothschild compared the external characters of *A. pulchellus* with those of *A. pygmaeus* of New South Wales. He did not mention *A. frontalis* from the Herbert River, Queensland, which De Vis founded upon a very young animal and placed originally in the genus *Dromicia*. The skulls of *A. pulchellus* and of one adult specimen of *A. frontalis* have now been cleaned and their characters and measurements checked with those of the type of *A. pygmaeus*. The three named forms are compared in the following tabular arrangement :

SKINS.

<i>A. pygmaeus</i> , paratype ²	<i>A. frontalis</i> , topotype	<i>A. pulchellus</i> , type
New South Wales	North Queensland	Dutch New Guinea (?)
Male, adult	Male, adult	Sex ? adult.
Colour faded by alcohol ; scarcely a trace of grey bases to the white ventral pelage ³	Dorsal colour Prout's Brown, with fuscous bases. Ventral colour creamy white to roots.	Dorsal colour brown with fuscous bases. Ventral colour dull white, with dark grey bases.
Tail longer than head and body . . .	Tail as <i>pygmaeus</i>	Tail shortened. By injury?

The white posterior part of the ear is a character common to all three types, as is the white upper lip.

² The female paratype corresponds externally to the male. Its skull has not been extracted.

³ A dried skin (A.M. 37185) from N. S. Wales has grey bases.

SKULLS.

	<i>A. pygmaeus</i> ♂ paratype	<i>A. frontalis</i> ♂ topotype	<i>A. pulchellus</i> type
Breadth braincase	1.06 (1.01) ⁴	1.01	.90
Mastoid breadth			
Breadth mesopter. fossa19 (.17)	.20	.18
Zygomatic breadth			
Palatal length75 (.79)	.77	.79
Zygomatic breadth $\frac{m^1}{m^{1.3}}$24 (.24)	.27	.25
palatal length width inside $\frac{m^1-m^1}{m^1}$33 (.30)	.35	.34
palatal length $\frac{m^1}{m^{1.3}}$40 (.40)	.39	.36

⁴ Proportions in parenthesis are those of a ♂ topotype, A.M. 37185.

Obviously we lack adequate series of the forms under consideration. Also ignorance of the sex of *A. pulchellus* weakens our comparison, for the very slight variations distinguishable in *pulchellus* may be entirely attributable to sexual

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differences. Aside from these points *pulchellus* agrees very closely with *pygmaeus* in the colour of the ventral pelage, in size, and in most of the cranial proportions tested. *A. frontalis*, on the other hand, is marked off from both *pygmaeus* and *pulchellus* by its ventral fur being white to the roots, and by the greater size of its teeth (see measurements above). Bearing in mind the doubtful origin of *pulchellus* and the presence of a distinct geographical form between its supposed territory and that of *pygmaeus*, 2,000 miles distant, the conclusion is scarcely avoidable that by error a specimen of *pygmaeus* was mislabelled New Guinea. In that case, when a sufficient series of the latter is available for study, *pulchellus* will fit within the range of individual variation of that series. If such is not the case, *pulchellus* can only be explained as one of the rarest of mammals living in parts of New Guinea whose zoology, broadly speaking, has been well explored.

In conclusion, I am inclined to the view that *Acrobates* Desmarest is an Australian genus comprising two species (or subspecies?)—*A. pygmaeus* with grey-based ventral pelage and smaller teeth ($m^{1-3} = 2.5$) in the south, and *A. frontalis* with self-coloured white ventral fur and larger teeth ($m^{1-3} = 2.8$) in the north. The animal *A. pulchellus* (= *pygmaeus*) was perhaps carried as a pet on board ship and obtained subsequently without proper locality by Bruijn.

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